

**Tortricidae (Lepidoptera) from South Africa.
6: *Choristoneura* HÜBNER and *Procris* DIAKONOFF**

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ABSTRACT. Two genera are discussed; 3 species of *Choristoneura* are treated; *Cacoecia heliaspis* MEYRICK and *C. occidentalis* Walsingham are transferred to *Choristoneura*; *C. freemani* n. nov. is a replacement name for Nearctic *C. occidentalis* FREEMAN not WALSINGHAM. Of three species of *Procris* two (*P. marieskopa* sp.n., *P. pilgrima* sp. n.) are newly described.

KEY WORDS: Lepidoptera, Tortricidae, new species, Afrotropical.

INTRODUCTION

This paper is the sixth of the series on the Tortricidae of South Africa based primarily on the collection of the Transvaal Museum, Cape Town where the holotypes are deposited.

Choristoneura and *Procris* are treated as closely related (RAZOWSKI 2002a). There are some other genera close or synonymous with first of them and some require description. Three of them are listed by RAZOWSKI (1992) and one, *Meridemis* DIAKONOFF, 1976, is also found in this region.

Abbreviations

MNHL - Natural History Museum London

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***Choristoneura* LEDERER, 1859**

RAZOWSKI (1992) revised *Choristoneura* dealing with the Palaearctic and Nearctic species. He also mentioned that its species "do not penetrate the Oriental region but only approach the western and northern intermediate zone, if we accept *Meridemis* as a distinct genus" and that *Choristoneura* does not occur even in the northernmost parts of the Neotropical region. Recent studies allow us to suppose that this genus has some Oriental representatives, e.g. in Vietnam. RAZOWSKI (2002a) found it in the Afrotropical region describing one species from Cameroon. Now we are convinced that *Choristoneura* has more African representatives.

***Choristoneura occidentalis* (WALSINGHAM, 1891), comb. n.**

Material examined

Lectotype male: "Syntype; Gambia, Bathurst, XI - 1884 - 5, CARTER 1886, No. 88"; GS 4761 BM; paralectotype, female, similar label ("CARTER 1885, No. 278"); GS 4719 BM.

Description

Male genitalia (Figs 1, 2) as described for *heliaspis* but with longer terminal part of sacculus.

Female genitalia (Fig. 11) also similar to *heliaspis* but with somewhat longer ductus bursae, smaller sclerite of antrum and seemingly larger signum.

Remarks

BROWN (2007) placed *Cacoecia occidentalis* in *Archips* HÜBNER, [1825] and sunk *Cacoecia heliaspis* as its synonymy. FREEMAN (1967) described from Washington, USA another species, *Choristoneura occidentalis* which becomes its younger homonymy (RAZOWSKI 1992). I am proposing for the latter a replacement name *Choristoneura freemani*.

The above mentioned characters may prove insufficient for separation of *heliaspis* from *occidentalis* hence a wider material should be examined for variation or local forms. In the NHML there are numerous specimens from several African countries (from Sierra Leone to Zanzibar) with similar facies.

***Choristoneura heliaspis* (MEYRICK, 1909), comb. n.**
(Figs 16 - 18)

Description

Male genitalia (Figs 3, 4). Uncus broad, rounded terminally; socius small; arm of gnathos weakly expanding subterminally, terminal plate very large; valva subsquare with rounded posterior corners; sacculus slender with small terminal process; transtilla narrowing medially; aedeagus slender posteriorly; coecum penis atrophied; cornuti up to three moderate spines.

Female genitalia (Fig. 16). Sterigma rather short, with well developed lateral arms; sclerite of antrum short; ductus bursae with 7 or 8 coils; cestum long; signum small.

Material examined

Over 30 males and 14 females from: South Africa: Port St. Johns (10-22.II.1955, A.T.J. JANSE; 20.I.1953, C.G.C. DICKSON); Durban (IV. 1954; 23-29.II.1952; II. 1955; III.1954; XII. 1954, etc., C.G.C. DICKSON); Umdoni Park (11-16.V.1974, L. Va'ri); Ndumu, Natal (10-12.II.1968, POTGIETER & JONES); Bobomene (10.V.1974, POTGIETER & SCOBLE); St. Lucia Lane, N. (X. 1934, H.W. BELL MARLEY); Nelspruit, Stonehaven (31o11'E 25o33'S, 1.II.1989, N.J. DUKE); Mtumatuba, Natal (E.R. HARRISON); Nelspruit, Tvl (28.I. 1981, M. SMIT); Nelspruit: Stonehaven.

Mozambique: Moronga Forest, Moz.[ambique] (20o03'S 33o09'E, 6-11.IX.1972, R.H. JONES); Chiluvo, Moc.[ambique] (26.III.1963, D.M.C. Cookson); Xiluvo, Vila Machado Distr. (9-10.III.1964, VARI & VAN SON).

Remarks

This species was described in the genus *Cacoecia* HÜBNER, [1825] and placed by BROWN (2005) under its older synonymy *Archips* HÜBNER, [1825] as a synonymy of *C. occidentalis* to which it is similar externally and shows analogous variation (Figs 16-20). *C. heliaspis* characterizes with small terminal part of sacculus.

***Choristoneura psorICODES* (MEYRICK, 1911)**
(Fig. 19)

Description

Male. Wing span 19.5 mm. Head and thorax ochreous cream, labial palpus (ca 3) and tegula mixed with brownish. Forewing slightly expanding terminally; costa weakly curved at base, without fold; apex broadly rounded; termen somewhat oblique, almost straight. Ground colour cream slightly suffused and densely strigulated with yellow-brown; in ter-

minal part of wing some veins similarly suffused. Marking yellowish brown in form of incomplete fascia extending from mid-costa towards tornus where ill-defined, small subapical blotch. Cilia cream scaled with yellow ochreous, browner at apex, cream at tornus. Hindwing brownish cream, darker on peripheries than at base, with indistinct brownish grey strigulation; cilia whitish.

Female. Wingspan 21-23 mm; labial palpus ca 4. Strigulation of forewing darker than in male; hindwing brownish grey.

Variation. Ground colour of forewing and strigulation more or less dark; some dots and basal line of cilia darker, rust brown.

Male genitalia (Fig. 13, not known until now). Sterigma with large, folded lateral parts and strong cup-shaped part fused with the sclerite of antrum; its more proximal portion forms a broad colliculum; ductus bursae rather short, with cestum; signum with atrophied basal plate, with moderate blade and slender capitulum.

Material examined

Eight specimens from Jonkershoek (22-23. X. 1965, L. VARI); Graskop, Tlv. (4. IX. 1954, G. VAN SON); De Hoop, Cape Prov., Bredasdorp Distr. (1-3.XI. 1967, VARI & POTGIETER).

Remarks

This species was described from South Africa (Haenertsburg and Woodbush Village, Transvaal). CLARKE (1958) illustrated the male lectotype preserving its original position in *Tortrix* auct. BROWN (2005) placed it in *Epichoristodes* DIAKONOFF, 1960. The examined specimens exactly fit the description and the illustration of the moth. There are some small differences in the sacculus and aedeagus only (compare Figs 5, 6).

I am including *psoricodes* in *Choristoneura* mainly on basis of similarity in the shapes of uncus, transtilla and valva. The males of examined examples are without costal fold.

Procrice DIAKONOFF, 1960

Remarks

Since description of this genus (DIAKONOFF 1960) new taxa have been successively added (cf. RAZOWSKI 2002b, nine species included). Now further two species are placed in this genus.

The present additions confirmed the characteristics of the genus and its similarity to *Choristoneura*. The species differ chiefly in coloration; the male genitalia are similar; the female genitalia are little known but we can characterize them as follows (examined in *P. ammina* DIAKONOFF, 1983, *P. mariepskopa* sp.n.): Papilla analis moderate, short hairy;

sterigma with short anteostial part and large postostial lateral arms; sclerite of antrum short, colliculum weak; ductus bursae slender, without cestum; signum may occur.

A new character, a group of specialized scent scales near the apex of female hindwing, is found in *Procrica*. This is a synapomorphy with *Archips*, not found in other tortricines.

***Procrica intrepida* DIAKONOFF, 1960**

Material examined

Ten male specimens from Transkei (Dwesa Forest), Durban, Charter's Kreek, late X, Natal) II. and V. 1955, Santa Lucia Bay, 30 IX, Natal; Dukuduku Forest in open grassland 28 V, Natal; Umdoni Park mid-XII; Illowo Beach I.; Port St. John's II.

Remarks

Described from Natal (Pinetown), South Africa; lectotype illustrated by CLARKE (1958); female lectoparatype not dissected. Type series in NHML. Genitally similar to *D. semilutea* DIAKONOFF, 1960.

***Procrica pilgrima* sp. n.**

(Fig. 20)

Diagnosis

Closely related and in male genitalia very similar to *P. parva* RAZOWSKI, 2002 from Kenya and *mariepskopa* sp. n. but *pilgrima* with dark brown hindwing and markings of forewing, and larger proximal part of uncus.

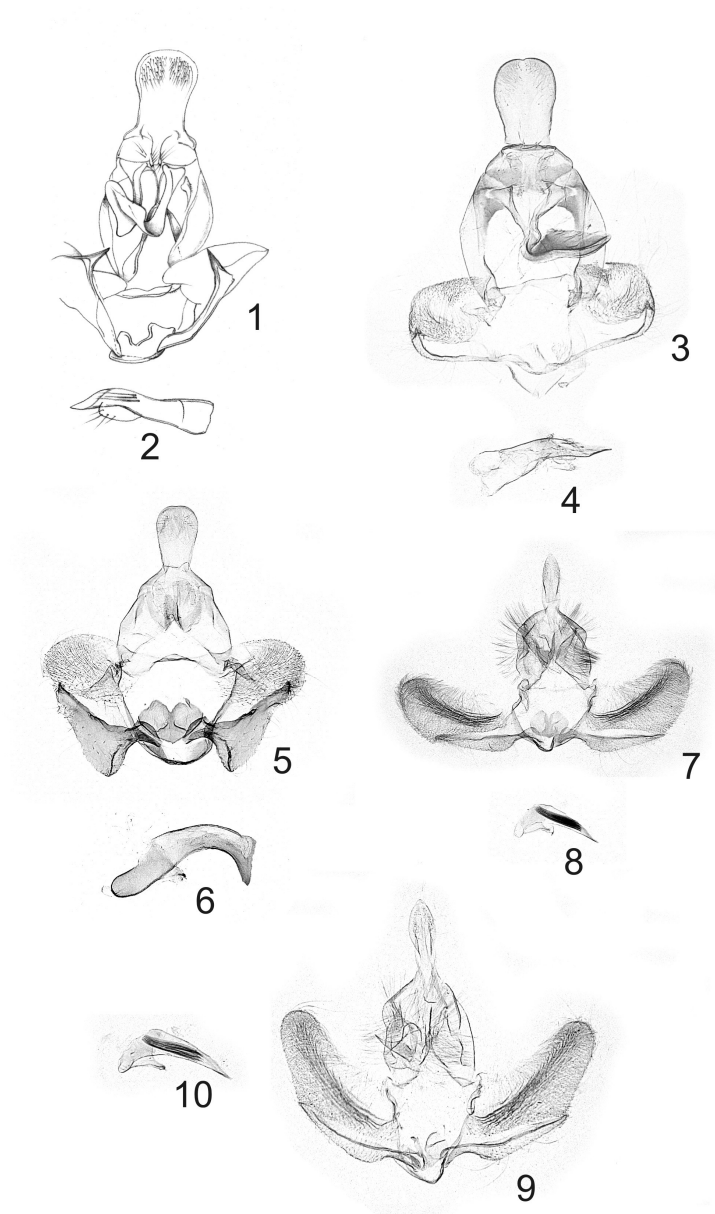
Etymology

The specific name refers to the type locality.

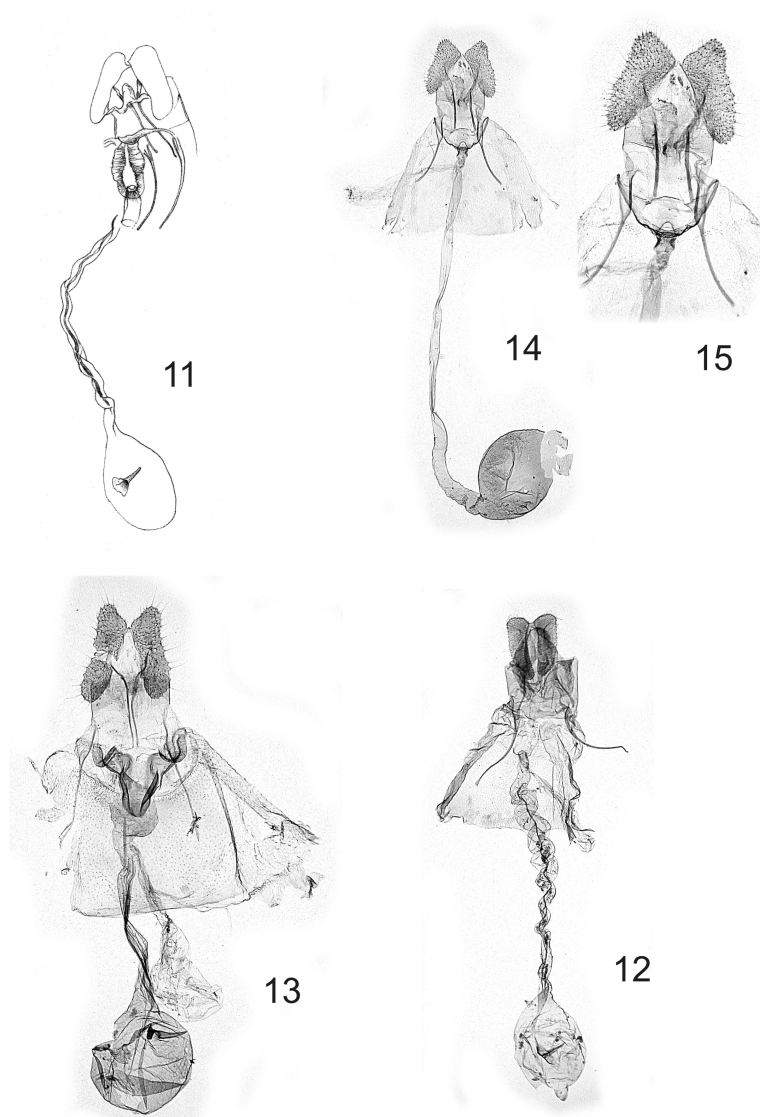
Description

Wingspan 16 mm. Head and collar brown, basal joint of labial palpus and frons brown orange; thorax yellow-brown, base of tegula with brown spot. Forewing not expanding terminally; costa strongly convex at base, termen straight to middle, not oblique. Ground colour yellow brown suffused with brown in terminal part of wing. Markings dark brown consisting of remnants of basal blotch at costa and dorsum; median fascia interrupted sub-costally, indistinct at middle; subapical blotch triangular. Cilia brownish, brown in costal half, tinged rust terminally. Hindwing dark brown; cilia paler, greyer.

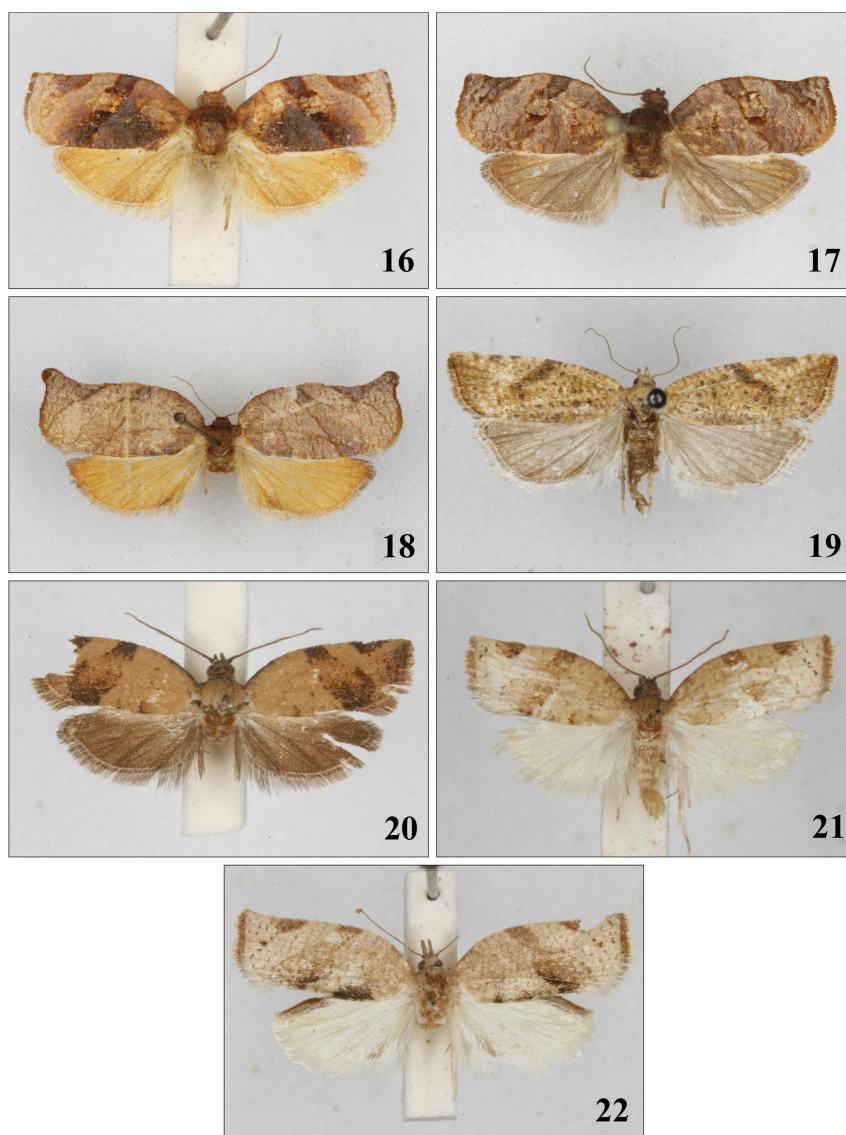
Male genitalia (Figs 7, 8). Uncus broad with proximal and posterior parts expanding medially; sacculus gently convex near middle; aedeagus rather short.



Figs 1-10. Male genitalia of *Choristneura* HÜBNER and *Procricea* DIAKONOFF: 1, 2 – *C. occidentalis* (WALSINGHAM), lectotype; 3, 4 – *C. heliaspis* (MEYRICK), Durban; 5, 6 – *C. psoricodes* (MEYRICK), Jonkershoek; 7, 8 – *P. pilgrima* sp. n., holotype; 9, 10 – *P. mariepskopa* sp. n., paratype, GS2 65.



Figs 11-15. Female genitalia of *Choristneura* HÜBNER and *Procricea* DIAKONOFF: 11 – *C. occidentalis* (WALSINGHAM), paralectotype; 12 – *C. heliaspis* (MEYRICK), Durban; 13 – *C. psorICODES* (MEYRICK), Graskop, Transvaal; 14, 15 – *P. mariepskopa* sp. n., paratype, GS 263.



Figs 16-22. Adults of *Choristneura* HÜBNER and *Procricea* DIAKONOFF: 16 – *C. heliaspis* (MEYRICK), male, Nelspruit, Transvaal; 17 – same species, male, Port St Johns; 18 – same species, female, same locality; 19 – *C. psoricodes* (MEYRICK), Jonkersville; 20 – *C. pilgrima* sp. n., holotype; 21 – *P. mariepskopa* sp. n., holotype; 22 – same species, female paratype, GS 260.

Material examined

Holotype male: "Mariepskop Pilgrim's Rest Distr., 23-26. II. 1962, VARÍ & LELEUP"; GS 166 RSA. One male from Tsitsikama Goesabos Forestry, 1-13. III. 1980, SCOBLE & KROON.

***Procrice mariepskopa* sp.n.**

(Figs 21, 22)

Diagnosis

Comparable with *C. parva* RAZOWSKI, 2002 from Kenya and *P. ophiograptæ* (MEYERICK, 1932) from Abyssinia but *mariepskopa* with hindwing pale cream, uncus slenderer, and aedeagus shorter.

Description

Male. Wing span 13 mm. Head brownish, thorax pale yellowish brown. Forewing costa curved to middle, termen straight, not oblique to vein M3. Ground colour pale ochreous cream slightly mixed and sparsely strigulated with brownish; some dots brown. Markings yellowish brown, darkest at costa; median fascia atrophying medially. Cilia brownish orange, cream at tornus. Hindwing pale yellowish cream; cilia cream.

Variation. Paler and darker specimens; a few with some parts of markings (mainly at costa) brown; median portions of markings atrophying.

Female. Wing span 17 mm. Basal third of forewing costa convex, remaining part straight. Colouration as in male or more cream with dense brownish strigulation; terminal part of wing cream. Markings weakly developed, preserved mainly at costa. Cilia paler than in male. Costal scent organ of hindwing brownish with rust outer scales.

Variation as in males or forewing ground colour almost cream and markings pale brownish yellow; in some specimens dark brown or black-brown suffusion along dorsum or at tornus.

Male genitalia (Figs 9, 10). Uncus broadest medially, with basal third of rather slender, terminal part tapering apically, pointed; sacculus weakly convex postbasally, with small free termination; aedeagus moderate, tapering terminally; cornuti numerous slender spines.

Female genitalia (Fig. 14, 15). Proximal edge of anteostial sterigma weakly convex, with small angles; lateral parts broad basally; sclerite of antrum short; ductus bursae fairly long, without cestum; corpus bursae ovate, without signum.

Material examined

Holotype male (not dissected): "Mariepskop 15-24 III 1965, POTGIETER & E. V. SON"; 5 male and 6 females identically labelled; 5 males from same locality, Pilgrim's Rest, 23-26 II

1962, VARI & LELEUP; one pair from Mariepskop, 4 - 7 and 8 - 11 III 1974, L. & G. VARI, and 1 female from Mariti Forest, 4-7 III 1974, L. & G. VARI.

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